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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/829,339	04/09/2001	David Y. Chan	0267-1430 (41912.018500)	1353

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EXAMINER

KITOV, ZEEV

ART UNIT PAPER NUMBER

2836

DATE MAILED: 02/11/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/829,339

Applicant(s)

CHAN ET AL.

Examiner

Zeev Kitov

Art Unit

2836

AW

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 24 November 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1 - 3, 7, 21 - 33 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1 - 3, 7, 21 - 28, 30 - 33 is/are allowed.
- 6) ☒ Claim(s) 29 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 November 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |                                                                                                                        |                                                                                         |
|------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                            | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____                                                |

### **DETAILED ACTION**

Examiner acknowledges a submission of the RCE request, an amendment and remarks filed on November 24, 2003. Claims 4 – 6 and 8 - 20 are deleted; Claims 1 – 3, and 7 are amended. New Claims 21 – 33 are added. Amendment have overcome previously presented rejections under 102 (b) and 103(a). However, addition of new claims necessitated the new search and new ground(s) of rejection presented in this Office action.

#### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 29 is rejected under 35 U.S.C. 103(a) as being unpatentable over LM1851 Data Sheet from National Semiconductor Corp. in a view of Torosian (US 3,731,154). LM1851 discloses following elements of Claim 29: a ground fault circuit interrupter (element LM1851 in Fig. 2) and a first surge protector component connected across a set of power inputs (element MOV in Fig. 2), a bridge circuit with plurality of diodes (not marked in Fig. 2), a GFCI processor connected between phase and neutral line of the circuit (element 1851 in Fig. 2). However, it does not disclose a second surge protector connected in parallel with the first one. Torosian discloses both the first (elements 5, 6

Art Unit: 2836

and 7 in Fig. 1) and the second surge protectors (elements 9 and 10 in Fig. 1), wherein the second surge protector includes a zener diode in series with a resistor (col. 2, lines 5 –30). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the LM 1851 solution by adding the second surge protector including the zener diode in series with the resistor, according to Torosian, because as Torosian states (col. 3, line 51-col. 4, line 44 and col. 4, lines 57 – 58), this way the spark will start discharging through the resistor-zener circuit first and through the gaps, 6 and 7 later, thus eliminating a possible failure of the gap 7 breakdown.

#### ***Allowable Subject Matter***

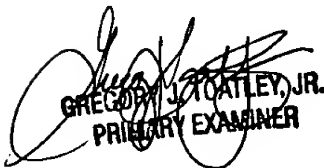
An amended independent Claim 1 discloses a ground fault circuit interrupter, which inter alia, includes following limitations: a low-pass filter circuit having a capacitor coupled in series with the solenoid coil of the GFCI, the low-pass filter connected across the power inputs of the GFCI to pass low frequency voltage signal to the GFCI circuit while blocking high frequency signals. The closest reference for the claim is Muelleman, which discloses some elements of the Claim, such as a device for protecting a ground fault circuit interrupter and filter connected across the power inputs of the GFCI circuit for filtering transient power surges to the surge protector component. However, it does not disclose the low-pass filter formed by the capacitor connected in series with the solenoid coil of the GFCI. That makes all dependent Claims 1 – 3, 7 and 21 – 28 and 30 allowable.

The same limitation is recited over again in the independent Claim 31, thus making Claims 31 – 33 allowable.

**Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Zeev Kitov whose current telephone number is (571) 272 - 2052. The examiner can normally be reached on 8:00 – 4:30. If attempts to reach examiner by telephone are unsuccessful, the examiner's supervisor, Brian Sircus can be reached on (571) 272 – 2800, Ext. 36. The fax phone number for organization where this application or proceedings is assigned is (703) 872-9306 for all communications.

Z.K.  
02/06/2004

  
GREGORY J. TOATLEY, JR.  
PRIMARY EXAMINER